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WILLIAM J. SAPONE COLEMAN SUDOL SAPONE P.C. 714 COLORADO AVENUE BRIDGE PORT, CT 06605			EXAMINER CHEN, CATHERYNE	
			ART UNIT 1655	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,517	AHARON, REFAEL	
	Examiner	Art Unit	
	Catheryne Chen	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/30/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Currently, Claims 1-10, 12-14, 16-20 are pending. Claims 1-10, 12-14, 16-20 are examined on the merits. Claims 11, 15 are canceled.

Election/Restrictions

Applicant's election of the species labiatae family in Claim 8 in the reply filed on April 26, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10, 12-14, and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The "fast deep-freeze" and "fast defrost" found throughout the claims are indefinite. It is unclear what speeds are encompassed by "fast;" therefore, the metes and bounds of the claims are unclear.

In addition, in Claims 6-7 and 10, the definition of "intermediator" and the phrase "the intermediary is an option" is unclear.

In Claim 8, step c), the antecedent basis for "the mixing stage" and the "solid residues" are unclear.

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A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 recites the broad recitation "the residue solid substances" followed by a narrowing limitation "in particular the cell wall," which is the narrower statement of the range/limitation.

In Claim 13, the metes and bounds of "mineral-rich" are unclear because it is unclear what is encompassed by "rich."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 6, 7, 9, 10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected (Methods).

Davey et al. does not specifically teach using plant liquids and solids in cosmetic, food, beverage, nutraceutical and pharmaceutical composition and mixing with intermediary. However, the method of extracting ascorbic acid is considered to inherently teach the claimed method because both the reference and the claimed invention are extracting plants for cosmetic, food, beverage, and medicinal purposes.

Claims 1, 6, 7, 9, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al. (Handbook of Molecular and Cellular Methods in Biology and Medicine, 1995, Chapter 20: Bioseparation techniques and Their Applications, pages 435-445).

Wu et al. teaches extraction protocol for plant tissue from -80 degree Celsius deep freeze, extraction with organic solvent, grind sample in liquid nitrogen to a fine powder, extract with methylene chloride/methanol, collect solvent (page 440).

Wu et al. does not specifically teach using plant liquids and solids in cosmetic, food, beverage, nutraceutical and pharmaceutical composition and mixing with intermediary. However, the method of extracting taxol is considered to inherently teach the claimed method because both the reference and the claimed invention are extracting plants for medicinal purposes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 4-6, 7, 9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19) and Laugharn, Jr. et al. (US 6270723 B1).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected (Methods). However, it does not teach freeze-defrost cycles.

Laugharn, Jr. et al. teaches sterilizing procedure of freezing and thawing (column 1, lines 51-54), where the material being sterilized can be a foodstuff, a pharmaceutical preparation (column 2, lines 61-64) at temperature from about -40 to about 95 degree Celsius (column 2, lines 15-17).

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The references also do not specifically teach process claimed by applicant. These processes are well known in the art to be acceptable means of processing plant materials and sterilizing the product. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the repeated freeze-thaw methods taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach performing the process in the time span and temperature range claimed by applicant. The process in the time span and temperature range is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, optimization of general conditions is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal process in the time span and temperature range to use in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of applicant's invention.

Claims 1-6, 7, 9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19) and Laugharn, Jr. et al. (US 6270723 B1) as applied to claims 1-2, 4-6, 7, 9, 12 above, and further in view of Rooks et al. (US 2004/0265451 A1).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected (Methods). However, it does not teach freeze-defrost cycles and micron size.

Laugharn, Jr. et al. teaches sterilizing procedure of freezing and thawing (column 1, lines 51-54), where the material being sterilized can be a foodstuff, a pharmaceutical preparation (column 2, lines 61-64) at temperature from about -40 to about 95 degree Celsius (column 2, lines 15-17).

Rooks et al. teaches freezing fruit and grinding the frozen material into particles having a size less than 750 microns (paragraph 0004) to make food powders such as beverages, natural coloring (paragraph 0037).

The references also do not specifically teach process claimed by applicant. These processes are well known in the art to be acceptable means of processing plant materials and sterilizing the product. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the repeated freeze-thaw methods taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant. In addition, the size of the plant solid affects the extraction and

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freezing processes. The smaller the particle size will increase the extraction surface and decrease the time to freeze the material. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the particle sizes taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach performing the process in the time span and temperature range claimed by applicant. The process in the time span and temperature range is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, optimization of general conditions is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal process in the time span and temperature range to use in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of applicant's invention.

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Claims 1, 6, 7-9, 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19) and Bracco et al. (US 4352746).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected (Methods). However, it does not teach labiatae family.

Bracco et al. teaches ground vegetable material from leaves, flowers, fruits, roots, rhizomes, plants from Labiatae family, rosemary, sage, origanum, marjoram, thyme (column 2, lines 8-23), where substances are extracted with organic solvents or oils (column 1, lines 36-38), then the substances are used for food such as milk powder, cosmetic products (column 5, lines 36-38, 48).

The references also do not specifically teach the wash process claimed by applicant. These processes are well known in the art to be acceptable means of cleaning the plants before extraction. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the wash steps taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

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Claims 13-14, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19), Laugharn, Jr. et al. (US 6270723 B1), Rooks et al. (US 2004/0265451 A1), and Bracco et al. (US 4352746).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected (Methods). However, it does not teach freeze-defrost cycles, micron size, and labiatae family.

Laugharn, Jr. et al. teaches sterilizing procedure of freezing and thawing (column 1, lines 51-54), where the material being sterilized can be a foodstuff, a pharmaceutical preparation (column 2, lines 61-64) at temperature from about -40 to about 95 degree Celsius (column 2, lines 15-17).

Rooks et al. teaches freezing fruit and grinding the frozen material into particles having a size less than 750 microns (paragraph 0004) to make food powders such as beverages, natural coloring (paragraph 0037).

Bracco et al. teaches ground vegetable material from leaves, flowers, fruits, roots, rhizomes, plants from Labiatae family, rosemary, sage, organum, marjoram, thyme (column 2, lines 8-23), where substances are extracted with organic solvents or oils (column 1, lines 36-38), then the substances are used for food such as milk powder, cosmetic products (column 5, lines 36-38, 48).

The references also do not specifically teach the wash process claimed by applicant. These processes are well known in the art to be acceptable means of cleaning the plants before extraction. Based on this knowledge, a person of ordinary

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skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the wash steps taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach process claimed by applicant. These processes are well known in the art to be acceptable means of processing plant materials and sterilizing the product. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the repeated freeze-thaw methods taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant. In addition, the size of the plant solid affects the extraction and freezing processes. The smaller the particle size will increase the extraction surface and decrease the time to freeze the material. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the particle sizes taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach performing the process in the time span and temperature range claimed by applicant. The process in the time span and

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temperature range is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, optimization of general conditions is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal process in the time span and temperature range to use in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of applicant's invention.

The references teach process for plants. Labiatae family are plants. Therefore the methods use to process the plants can be transferred to the Labiatae family plants. This reasonable expectation of success would motivate the artisan to use the process taught in the reference composition. Thus, using Labiatae family plant is considered an obvious modification of the references.

Claims 13-14, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey et al. (Anal. Biochem., 1996, vol. 239, pages 8-19), Laugharn, Jr. et al. (US 6270723 B1), Rooks et al. (US 2004/0265451 A1), and Shibani et al. (US 4732759).

Davey et al. teaches pulverizing plant tissue in liquid nitrogen, extracted in 3% metaphosphoric acid, centrifuged, pass through cartridge, then eluate is injected

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(Methods). However, it does not teach freeze-defrost cycles, micron size, and labiatae family.

Laugharn, Jr. et al. teaches sterilizing procedure of freezing and thawing (column 1, lines 51-54), where the material being sterilized can be a foodstuff, a pharmaceutical preparation (column 2, lines 61-64) at temperature from about -40 to about 95 degree Celsius (column 2, lines 15-17).

Rooks et al. teaches freezing fruit and grinding the frozen material into particles having a size less than 750 microns (paragraph 0004) to make food powders such as beverages, natural coloring (paragraph 0037).

Shibanai et al. teaches medicinal herbs used in cosmetics produced by freezing method (column 2, lines 54, 57-58) from lavender and chlorophyll (column 5, lines 13, 18, 21).

The references also do not specifically teach the wash process claimed by applicant. These processes are well known in the art to be acceptable means of cleaning the plants before extraction. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the wash steps taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach process claimed by applicant. These processes are well known in the art to be acceptable means of processing plant

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materials and sterilizing the product. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the repeated freeze-thaw methods taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant. In addition, the size of the plant solid affects the extraction and freezing processes. The smaller the particle size will increase the extraction surface and decrease the time to freeze the material. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the processes of freezing plant materials and the particle sizes taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to perform the process as taught by the reference in the forms claimed by applicant.

The references also do not specifically teach performing the process in the time span and temperature range claimed by applicant. The process in the time span and temperature range is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, optimization of general conditions is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal process in the time span and

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temperature range to use in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of applicant's invention.

In cosmetics, chlorophyll is used as coloring matters. Plants have chlorophyll. Based on this knowledge, a person of ordinary skill in the art would have had a reasonable expectation that combining the chlorophyll of plant materials into cosmetics taught by the references in the claimed forms would be successful. Therefore, an artisan of ordinary skill would have been motivated to combining the chlorophyll of plant materials into cosmetics as taught by the reference in the forms claimed by applicant.

Conclusion

No claim is allowed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catheryne Chen whose telephone number is 571-272-9947. The examiner can normally be reached on Monday to Friday, 9-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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